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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,268	06/01/2000	JUPING YANG	106327	3021

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EXAMINER

RAHIMI, IRAJ A

ART UNIT PAPER NUMBER

2622

DATE MAILED: 07/15/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/584,268

Applicant(s)

YANG ET AL.

Examiner

(Iraj) Alan Rahimi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1, 2, 4-6, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Birgmeir (US patent 5,216,521).

Regarding claim 1, Birgmeir discloses an image correction apparatus comprising:

an image obtaining unit (memory 6) that obtains image data from outside (scanner 1) constituted of a plurality of pixels each having a value in a color component among a plurality of color components;

an average value calculation unit that calculates average values of color component values corresponding to individual color components in said image data (column 7, lines 7-21);
and

a correction unit that corrects the color component values of individual pixels to match the average values of the color component values corresponding to individual color components with at least one specific reference value (column 7, lines 22-53).

Regarding claim 2, Birgmeir discloses an image correction apparatus according to claim 1, wherein:

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said correction unit uses one common reference value for said plurality of color components as said reference value (column 7, lines 44-48).

Regarding claims 13 and 14, arguments analogous to those presented for claim 1, are applicable.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birgmeir (US patent 5,216,521) in view of Tamura (US patent 6,040,860).

Regarding claim 4, Birgmeir does not disclose an image correction apparatus according to claim 1, wherein:

said correction unit fixes a maximum value and a minimum value of the color component values corresponding to individual color components not to be corrected and corrects color component values between the maximum value and the minimum value by using a specific function. However, Tamura discloses in column 19, lines 1-15 that various statistical values including the difference between the maximum and minimum color signals may be used for evaluating the input image. Birgmeir and Tamura are combinable because they are from the same field of endeavor that is color correction. It would have been obvious to a person skilled in

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the art, at the time of invention to use the teaching of Tamura as it provides varieties of statistical values for evaluating the RGB signal. The motivation for doing so would have been to output an image with rich graduation across the full range of subject lighting. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to combine Birgmeir with Tamura to obtain invention as specified in claim 4.

Regarding claim 6, Tamura discloses an image correction apparatus according to claim 2, wherein:

said correction unit sets a maximum value among said average values of the color component values corresponding to individual color components as said common reference value (column 19, lines 1-15).

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birgmeir (US patent 5,216,521) in view of Terashita (US patent 4,641,959).

Regarding claim 5, Birgmeir does not disclose an image correction apparatus according to claim 2, wherein: said correction unit sets a value achieved by further averaging said average values of the color component values corresponding to individual color components as said common reference value. However, Terashita discloses in column 8, lines 10-30 that average of RGB average values are calculated for removing defects. Birgmeir and Terashita are combinable because they are from the same field of endeavor that is color correction. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to combine the averaging technique of Terashita with Birgmeir. The motivation to do so would have been to

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remove defects in the boundary areas. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to combine Birgmeir and Terashita to obtain the invention as specified.

Allowable Subject Matter

6. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art and the prior art of record specially, Birgmeir does not teach the limitations of the claim as listed.

Other Prior Art Cited

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Levien (US patent 5,544,258) discloses automatic tone correction of image.

Lin (US patent 6,522,432) discloses averaging the average RGB values.

Lin (US patent 5,812,286) discloses collecting statistics for each channel.

Hsieh et al. (US patent 6,507,667) discloses averaging the RGB values.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraj) Alan Rahimi whose telephone number is 703-306-3473.

The examiner can normally be reached on Mon.-Fri. 7:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alan Rahimi
July 12, 2004



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